

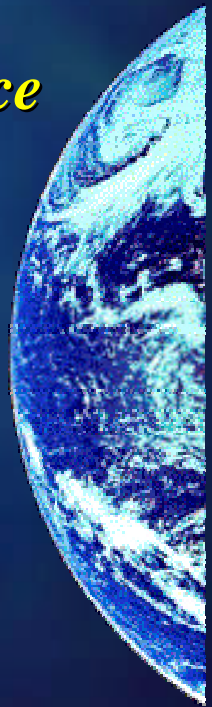


John W. Douglass
CEO & President

Aerospace & Aviation Technologies Panel

Naval -Industry R&D Partnership Conference

August 9-11, 2000



Technology

THEN

NOW

Military/Commercial Technology

Distinct

Blurred

Technology Flow

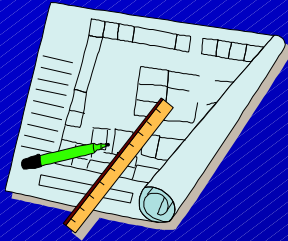
Military to Commercial

Two-Way



Transmission of Technology

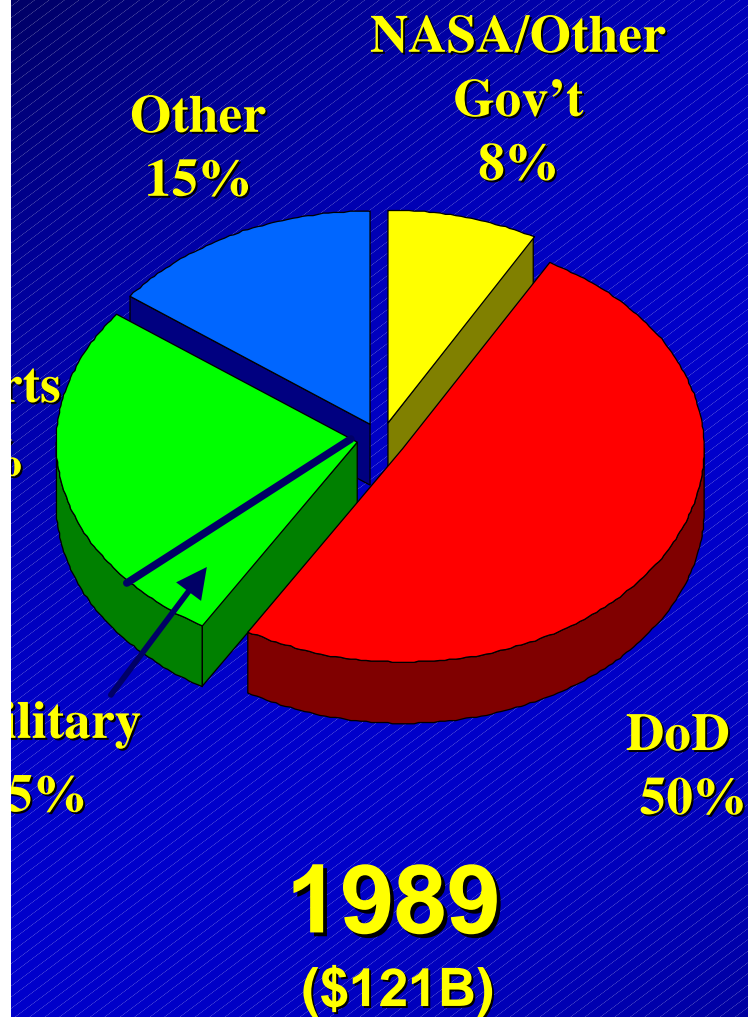
Paper



Electronic



U.S. Aerospace Industry Sales



Trade Balance by Industry, 1998

Industry	Trade Balance (Billions of Dollars)
Aerospace	42
Chemicals and Allied Products	8
Agriculture, Forestry and Fishing	3
Tobacco Products	2
Instruments et al	2
Food and Kindred Products	1
Mining	-1
Miscellaneous Manufacturing Industries	-2
Apparel and Related Products	-3
Electronic Equipment Except Computers	-4
Transportation Equipment Excl. Aerospace	-5
Other Industries	-10
Imports	-55

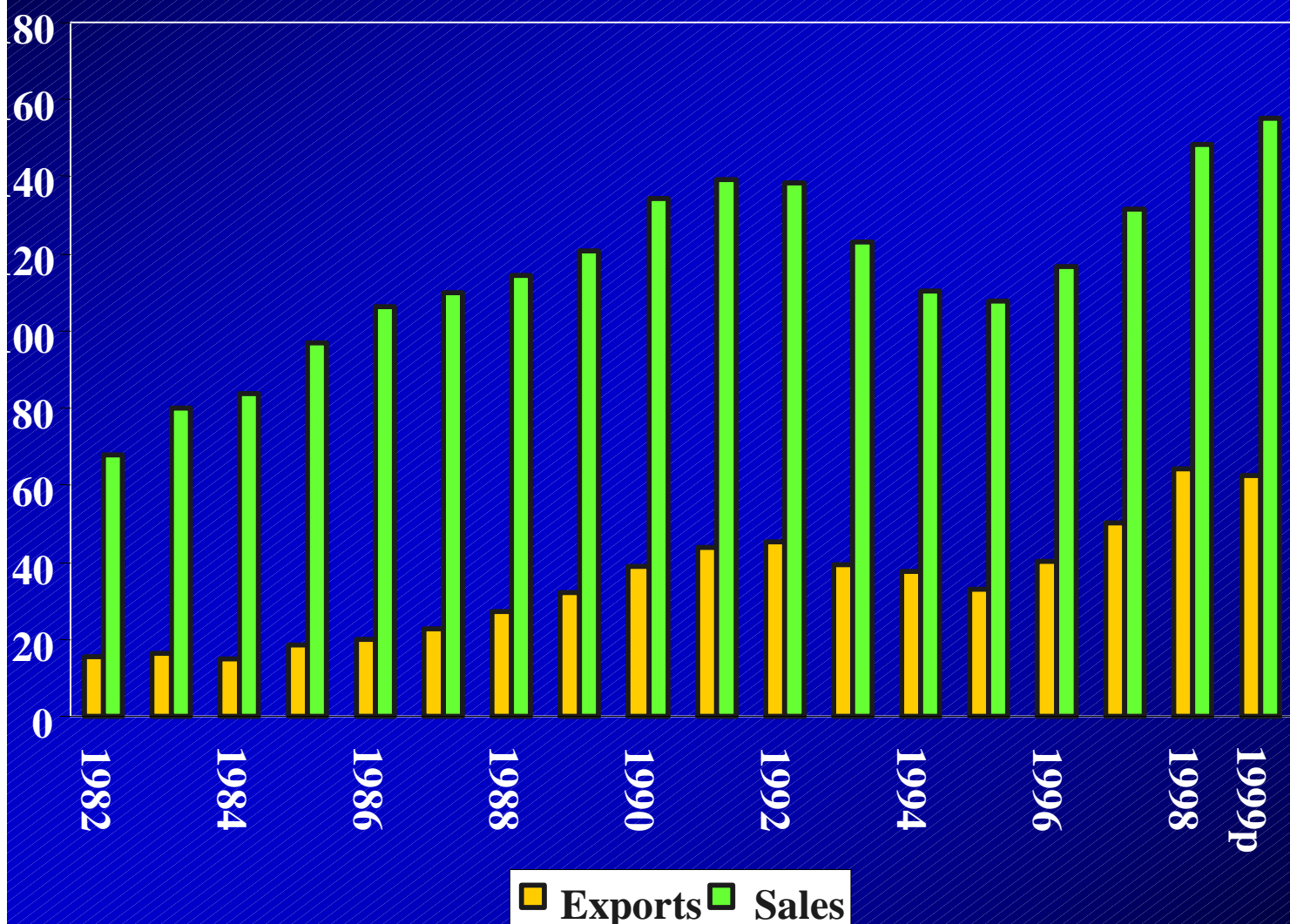
Billions of Dollars

Chemicals and Allied Products
Agriculture, Forestry and Fishing
Tobacco Products
Instruments et al
Food and Kindred Products

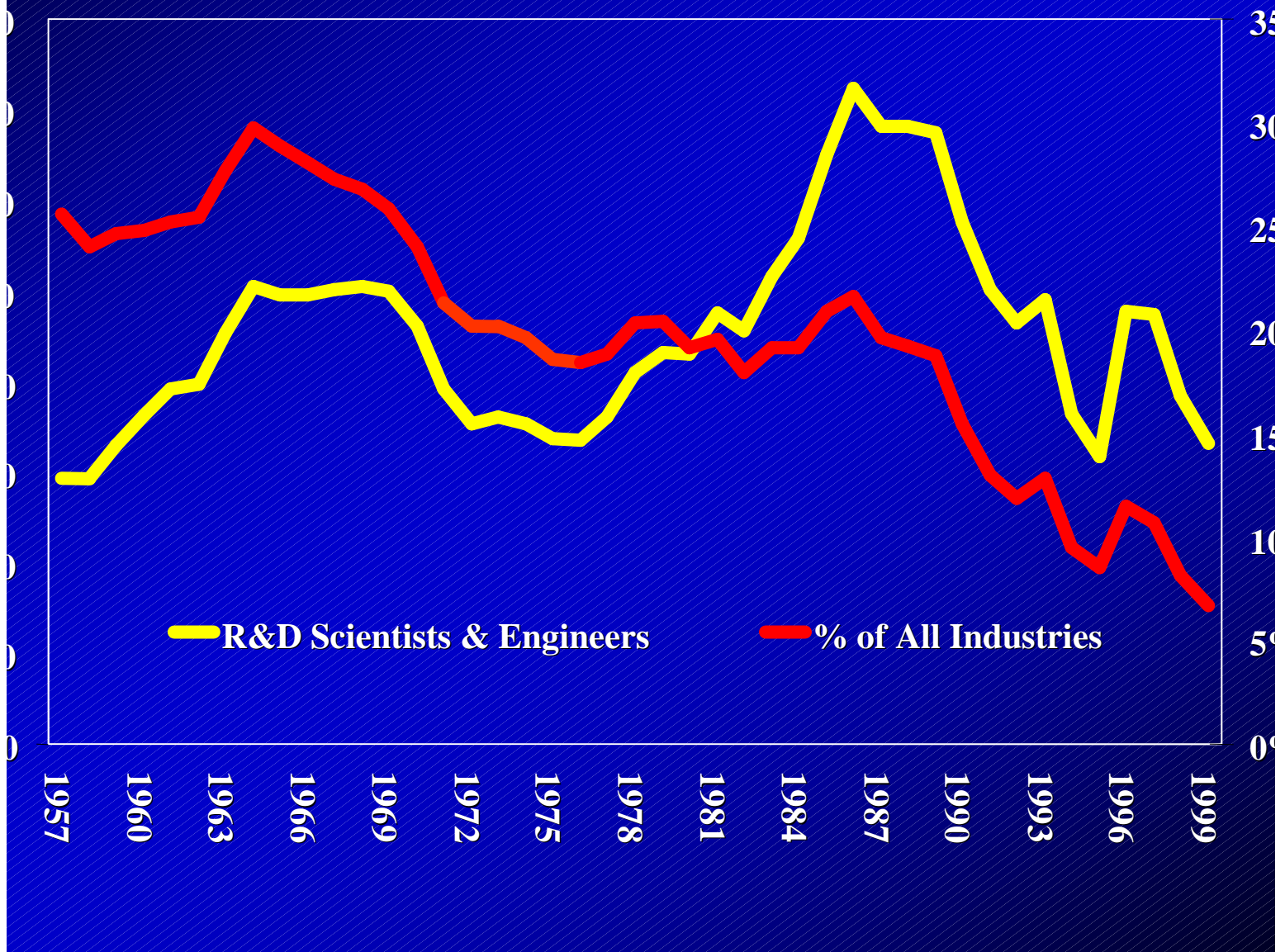
Miscellaneous Manufacturing Industries
Apparel and Related Products
Electronic Equipment Except Computers
Transportation Equipment Excl. Aerospace

5-55-45-35-25-15 -5 5 15 25 35 45
Billions of Dollars

Aerospace Industry Sales vs Exports



R&D Scientists & Engineers Employment in Aerospace and as Percentage of All Industries



Election Issues 2000

Modernize the Export Control System

Implement a National Strategy for Aerospace R&D Funding

Continue Reform of Government/Industry Business Practices

Ensure American Leadership in Space in the 21st Century

Increase U.S. Aerospace Access to the Global Economy

Remove Barriers to Public/Private Cooperation

**Create a Presidential Commission
on the Future of Aerospace**



Today's Trends in Aerospace Industry

Increasing civil/military integration

Consolidation of companies at multiple levels driven by market, world economic situation, need to compete with American giants

Emergence of competing sectors for capital

Strong erosion of government-sponsored research

Misconception regarding the government's ability to implement reform

Primes become systems designers, integrators, final assemblers and after-market supporters

Tomorrow's Revolution in Aerospace

- **New ATC systems**
- **New sensors/communications links w/big pipes**
- **New power sources**
- **Horizontal takeoff/landing space ships & launch vehicles**
- **Greater use of automation in the cockpit**
- **Broadened use of RPVs/UAVs by military**

Challenges - Commercial

- Increasing demand for passenger and freight capacity
- Severe hub saturation
- Demand for greater safety
- Increasing concern for ecology (noise/pollution)

Challenges - Military/Industry

- Navy is best suited to lead in meeting the challenges of
 - Network centric warfare
 - War/combat use of information technology
 - Acquisition reform
- How can Industry and Navy cooperate to meet the challenges/issues?
 - Fiscal realities
 - Threat realities
 - Is the Navy's vision of naval aviation tied to the carrier vision?

